Immigrant low-income rates: The role of market income and government transfers

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The decline in earnings among immigrants over the past quarter century is well documented. Previous studies have identified several factors underlying immigrants' deteriorating labour market outcomes. The first is the shift in immigrant source countries from Europe and the United States to Asia and Africa, and the associated change in related characteristics, for example proficiency in official languages, perceived or real differences in educational systems, and cultural differences that may influence labour market outcomes. The second factor is the general decline in labour market entry earnings during the 1980s and 1990s that affected both 'recent' immigrants and the Canadian-born alike. The third set of factors relates to the decline in earnings returns to foreign work experience and other immigrant specific characteristics (Picot and Sweetman 2005, Reitz 2007, and Picot 2008).

Census data suggest that, in 1980, 'very recent' male immigrants (in Canada five years or less) earned on average about 85% that of the comparable Canadian-born. By 2005, this number had fallen to around 65%. As their relative earnings at entry declined, immigrants arriving since the 1980s needed more time to achieve earnings parity with Canadian-born workers. The earnings of immigrants entering Canada in the late 1970s approached those of the comparable Canadian-born after 15 to 20 years. However, the earnings of immigrants entering during the late 1980s and 1990s will likely take much longer to converge with those of the Canadian-born (Frenette and Morissette 2005).

But these are trends in *average* earnings. Less well-known is the fact that the earnings decline was greater at the bottom of the earnings distribution than at the top (Lemieux 2008). This phenomenon had a significant effect on trends in low-income rates among immigrants since they were more concentrated at the bottom of the earnings distribution than Canadian-born workers. Picot and Hou (2003) found a significant rise in low-income rates among both entering immigrants and those who had been in Canada for many years.

Trends in low-income rates provide an important measure of family economic welfare at the bottom of the income distribution. Since low-income rates are based on total family income, which includes government transfer payments and investment and pension income, as well as employment earnings, they provide a more inclusive picture of the economic resources available to families than studies of earnings alone. And the vast majority of studies on the economic integration of immigrants are based on individual earnings only, rather than total family income. Moreover, this study uses the economic family concept which includes extended family living arrangements that are more common among immigrants.

This article provides an overview of the trends in low-income rates among immigrant groups and the Canadian-born population (see *Data source and definitions*). The main issue is whether the change in low-income rates was associated primarily with changes in market income (mostly income from employment) or the social transfer system (for example, Employment Insurance [EI] benefits, social assistance, and child benefits). Analysis is conducted for immigrants as a whole, and separately for immigrant children and immigrant seniors.

Low-income rates increasing among immigrants relative to Canadian-born

Between 1980 and 2000, the after-transfer, before-tax low-income rate rose among immigrants from 17% to 20%, while it fell among the Canadian-born from

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Data source and definitions

This study is based on 1981, 1986, 1991, 1996, 2001 and 2006 **Census** data. Immigrants who came to Canada in the census year or the year prior to the census year are excluded because the annual income information is either unavailable or incomplete.[1] Immigrant children are defined as persons age 0 to 17 and who were born abroad to non-Canadian parents, or those who are born in Canada in families where the person with the highest income is an immigrant.[2] Immigrant seniors are those age 65 or over.

Statistics Canada's **low-income cut-offs** (LICOs, 1992 base, after government transfers and before income taxes) were used to determine low-income status. The LICOs are 'fixed' low-income cut-offs, adjusted only for the changes in the Consumer Price Index (CPI). Low-income rates are based on economic family income after transfer and before tax because, prior to the 2006 Census, information on income tax paid was not collected in the census. Other low-income measures (LIMs)—like fixed-base LIMs[3]—are quite close to the LICOs and are very unlikely to produce substantively different trends.

A person is defined as in low income if his economic family income is below the LICO. An 'economic family' refers to a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law relationship or adoption. Individuals living alone or with unrelated persons are treated as 'one-person families.' All individuals in the same economic family will have the same low-income status. Thus, an individual's low-income status is affected by the income of all family members. Although multi-generational families are not common in general, they are more prevalent among some immigrant groups. Therefore, low-income rates of elderly immigrants are more likely to be affected by earnings of adult children with whom they live.

In this study, family income is split into two components: **market income** and **government transfers. Market income** includes employment income, investment income, private retirement pensions, superannuation and annuities and other money income. **Government transfer payments** include Employment Insurance (EI), Old Age Security (OAS), Guaranteed Income Supplement (GIS), Canada or Quebec Pension Plan, and child benefits, as well as other government transfers (including social assistance and workers' compensation).

17% to 14% (Table 1).[4] This tendency towards rising rates among immigrants and falling rates among the Canadian-born continued during the more recent 2000 to 2005 period. In 2005, about 22% of immigrants were in low income.

There are some exceptions to this general trend. First, the low-income rate trends among immigrants in Canada for more than 20 years have resembled those of the Canadian-born. This group consists primarily

Table 1 Low-income rates by immigration status, 1980 to 2005

	Total	Canadian-born	Immigrants	Years since immigration				
				5 or less	6 to 10	11 to 15	16 to 20	Over 20
				%				
After-transfer, before-tax low-income rate								
1980	17.1	17.2	17.0	24.6	18.7	14.4	14.7	16.7
1985	18.7	18.5	19.3	34.2	26.0	19.8	15.9	16.5
1990	15.5	15.1	17.1	31.3	24.2	19.0	15.2	12.6
1995	19.1	17.6	24.7	47.0	35.3	27.2	22.1	15.5
2000	15.6	14.3	20.2	35.8	28.3	22.7	19.1	13.3
2005	15.3	13.3	21.6	36.0	28.0	25.8	21.5	13.3
Low-income rates relative to the Canadian-born								
1980	...	...	1.0	1.4	1.1	0.8	0.9	1.0
1985	...	...	1.0	1.8	1.4	1.1	0.9	0.9
1990	...	...	1.1	2.1	1.6	1.3	1.0	0.8
1995	...	...	1.4	2.7	2.0	1.6	1.3	0.9
2000	...	...	1.4	2.5	2.0	1.6	1.3	0.9
2005	...	...	1.6	2.7	2.1	1.9	1.6	1.0

Note: The sample size for the smallest cell in this table is 67,000.
Source: Statistics Canada, Census of Canada, 20% sample microdata files, 1981 to 2006.

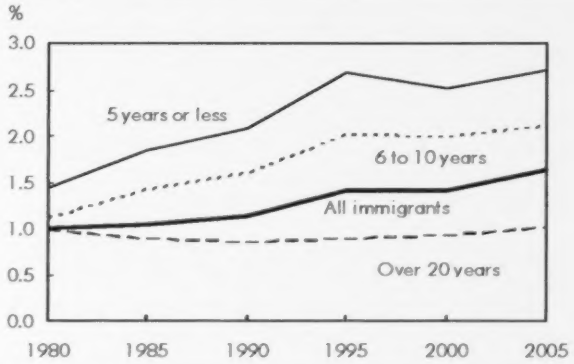
of immigrants from the developed nations of Europe who arrived before 1980. In addition, there may be groups within the Canadian-born whose low-income rates have risen, counter to the general downward trend. Low income is concentrated among five groups: lone parents, off-reserve Aboriginal peoples,[5] persons age 45 to 64 and not in families, those with work-limiting disabilities, and recent immigrants (Hatfield 2003). Of these groups, only recent immigrants experienced significant low-income rate increases between 1989 and 2006. The rate declined significantly among lone mothers and was stable among the remaining groups (Picot and Michaud 2007).

Of course, low-income rates rise in economic recessions and fall in expansions. Such cyclical variations can mask long-term trends. Hence, a better way to report trends is to focus on *relative* low-income trends among immigrants, that is to say their low-income rate relative to that of the Canadian-born. Any fluctuation in the rates associated with the business cycle is likely to affect the trends for the Canadian-born as well as for immigrants. Therefore the comparison with the Canadian-born provides a rough control for business cycle effects.[6] In 1980, immigrants had a low-income rate that was roughly equal to that of the Canadian-born. This relative rate remained roughly constant until 1990, and then rose to 1.4 by 1995, and 1.6 by 2005. In other words, the low-income rate was 60% higher for immigrants than for the Canadian-born in 2005.

Another important factor that affects low-income rates is the number of years immigrants have been in Canada. Earnings rise with years spent in Canada. Thus, low-income rates are highest among very recent immigrants (in Canada for five years or less). In 1980, very recent immigrants had low-income rates that were 1.4 times higher than those of the Canadian-born, while immigrants in Canada between 11 and 15 years posted relative rates below 1.0—lower than the rate for the Canadian-born.

Relative low-income rates generally rose among most immigrant groups over the 1980 to 2005 period (Chart A). In 2005, the after-transfer/before-taxes low-income rate among very recent immigrants was 2.7 times higher than that of the Canadian-born. Among immigrants in Canada for 11 to 15 years, it was 1.9 times higher.

Chart A Relative (to Canadian-born) low-income rates among immigrants by years since immigration



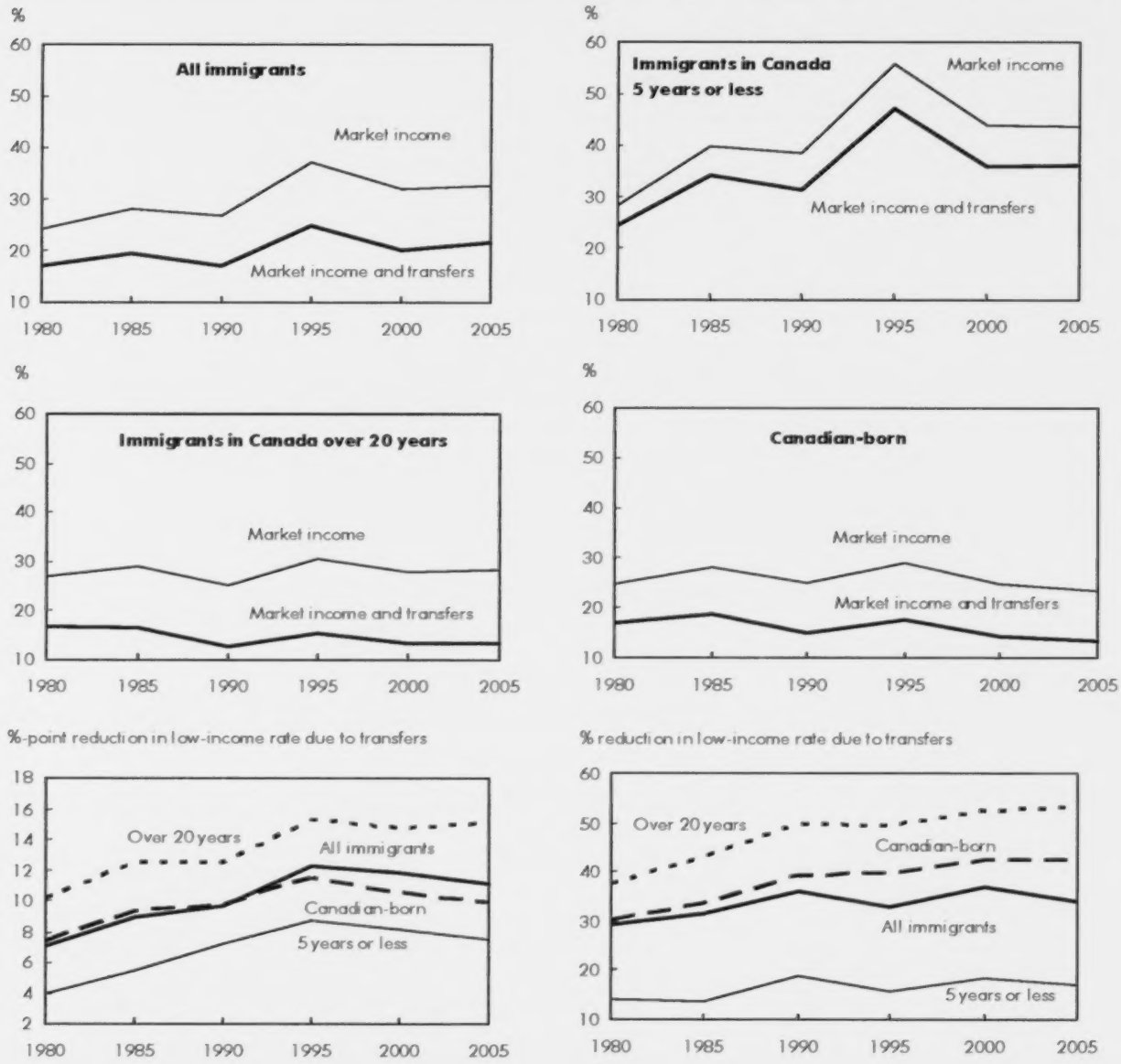
Source: Statistics Canada, Census of Canada, 20% sample microdata files, 1981 to 2006.

Factors affecting low-income rates

There are three major factors that influence aggregate low-income rates: the labour market, through employment and earnings; the government, through direct and indirect effects of transfer programs;[7] and demographic change, like the increase in the number of single-parent families, which can cause the aggregate rate to rise. This section focuses on market income and the direct effect of transfers.[8] Immigrant low-income rates may have risen because market income (mainly employment income) fell among immigrants, the transfer system reduced the low-income rate to a lesser extent in 2005 than in 1980, or for both reasons.

To determine the relative importance of these two factors, low-income rates are first computed based on market income. This calculation indicates how many families would be in low income based on market income only, thus providing a direct measure of the extent to which the rise in low-income rates was related to changes in family market income. Transfer income is then added to family market income and low-income rates are recomputed.[9] The difference between the low-income rates before and after transfers provides a measure of the direct effect of the transfer system on low-income rates.

Chart B Market-based and after-transfer low-income rates, all age groups



Source: Statistics Canada, Census of Canada, 20% sample microdata files, 1981 to 2006.

This analysis examines the relative role that market income and transfers played in the change of low-income rates among immigrants.[10] To examine longer-term trends, this study focuses on 1980, 1990, 2000 and 2005, years that are roughly comparable with respect to the business cycle.

The situation for all immigrants is straightforward. The market income-based low-income rate rose significantly over the period, from 24% in 1980 to 33% in 2005, a 36% increase (Chart B). Hence, declining family market income resulted in a significant rise in the rate. The after-transfer low-income rate is lower, as transfers increase family income and reduce the number of people in low income. The after-transfer rate rose from 17% to 22% over the period, a 27% increase (Table 4). Since the increase in the rate was lower after transfers than before transfers, this implies that the transfer system increasingly offset market-based low income over the 1980 to 2005 period.

The transfer system offset can be seen more directly by measuring the percentage-point reduction in the low-income rate due to transfers. This distance between immigrants and the Canadian-born was larger in 2005 (11 percentage points) than in 1980 (7 percentage points). This same effect of the transfer system on rate reduction is also shown on a percentage basis rather than a percentage-point basis. The transfer system reduced the low-income rate by 29% in 1980,[11] 36% in 1990, 37% in 2000, and 34% in 2005. Whether calculated on an absolute percentage-point basis or a percent-reduction basis, the transfer system reduced the immigrant low-income rate more in 2005 than in 1980. Most of this change took place during the 1980s.

The rise in the low-income rate among all immigrants is due primarily to falling family earnings.[12] The situation is similar for most other immigrant populations examined, including very recent immigrants and those in Canada for over 20 years.

Low-income trends among immigrant children

Analysts often focus on low-income rates among children because growing up in low-income families may affect future opportunities for these children. Immigrant children are defined as those born to two immigrant parents or born in a family where an immigrant parent is the highest income earner.

The low-income rate among immigrant children is higher than that among other immigrants and the Canadian-born, and has been increasing at a more rapid rate. Immigrant children had a low-income rate of 27% in 2005, compared with 22% for immigrants of all ages, and 15% for children of Canadian-born parents. Immigrant children's low-income rate increased from 16% in 1980, to 25% in 2000, and to 27% in 2005—an increase of 66% over the period, compared with 27% for immigrants as a whole. This rise occurred while the rate among Canadian-born children was falling (Table 2).

Table 2 Low-income rates among children age 0 to 17 by immigration status[1]

	Total	Canadian-born	Immigrants	Years since immigration				
				5 or less	6 to 10	11 to 15	16 to 20	Over 20
				%				
After-transfer, before-tax low-income rate								
1980	19.1	19.8	16.5	28.0	21.2	16.1	16.3	12.2
1985	20.7	20.9	19.8	39.5	28.5	22.0	17.3	13.5
1990	17.5	17.1	19.0	37.4	27.2	21.8	17.2	10.4
1995	22.1	20.0	30.2	55.8	40.7	32.0	25.8	16.0
2000	17.6	15.5	24.9	41.9	34.2	27.3	22.1	13.1
2005	18.0	14.8	27.4	42.4	31.7	31.0	25.3	14.2
Low-income rates relative to Canadian-born								
1980	...	...	0.8	1.4	1.1	0.8	0.8	0.6
1985	...	...	0.9	1.9	1.4	1.1	0.8	0.6
1990	...	...	1.1	2.2	1.6	1.3	1.0	0.6
1995	...	...	1.5	2.8	2.0	1.6	1.3	0.8
2000	...	...	1.6	2.7	2.2	1.8	1.4	0.8
2005	...	...	1.9	2.9	2.1	2.1	1.7	1.0

1. Based on the immigration status of the highest earner in the family.
Source: Statistics Canada, Census of Canada, 20% sample microdata files, 1981 to 2006.

The low-income rate is highest among children whose parents recently came to Canada, and falls with time spent in Canada. The rate among children in families who recently arrived in Canada (during the previous 5 years) was 42% in 2005, up from 28% in 1980.

Relative roles of family market income and transfers

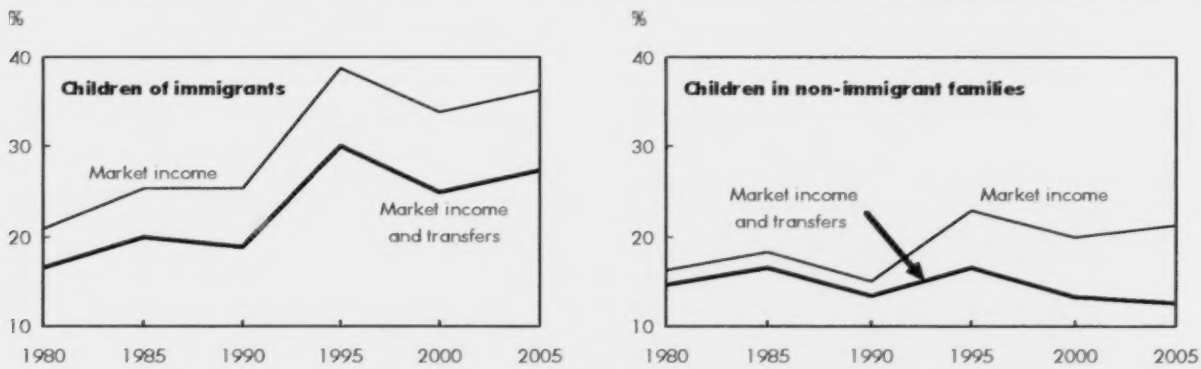
In 2005, the low-income rate among immigrant children was higher than that for children with Canadian-born parents or working-age immigrants (age 18 to 59) (Chart C). This difference was entirely associated with lower market income among immigrant families with children. Market-based low-income rates were 14 percentage points higher among immigrant children than Canadian-born children in 2005, at 36% versus 22% (Table 5). The transfer system reduced these rates by 9 percentage points among immigrant children, and 8 among the Canadian-born. Transfers reduced the low-income gap between these two groups to a limited extent.

A similar situation emerges when immigrant children are compared with working-age immigrants. The 2005 market-based low-income rate was 35% (or 10 percentage points) higher among immigrant children than among immigrants age 18 to 59. After transfers are included, this difference is reduced to 30% (or 6 percentage points). In that year, transfers reduced the low-income rate more among children in immigrant families (9 percentage points) than among the working-age immigrant population (6 percentage points) (Table 6). The difference between the low-income rate for children and the working-age population is associated with differences in family earnings.

Low-income trends among immigrant seniors

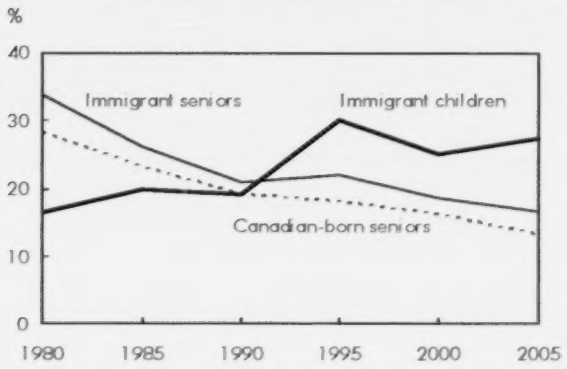
While the low-income rate has been rising among the immigrant population as a whole, and immigrant children in particular, it has been falling among immigrant seniors. This downward trend is not restricted to immigrant seniors—the rate also fell among Canadian-born seniors. Since the 1970s, the low-income rate has fallen faster among seniors than for any other population group. And internationally, Canada went from having one of the highest low-income rates for seniors among Western nations in the late 1970s to one of the lowest by the 2000s (Smeeding 2003, Picot and Myles 2005). This trend was related to changes in transfer programs, the maturation of the Canada and Quebec Pension Plans (CPP/QPP), and increasing private pension income (Myles 2000). Low-income rates also fell for immigrant seniors (Chart D), but for somewhat different reasons.

Chart C Market-based and after-transfer low-income rates, children age 0 to 17[1]



1. Immigrants status was that of the highest earning in the economic family with children age 0 to 17.
Source: Statistics Canada, Census of Canada, 20% sample microdata files, 1981 to 2006.

Chart D Low-income rates among immigrant children and seniors



Source: Statistics Canada, Census of Canada, 20% sample microdata files, 1981 to 2006.

The low-income rate was cut in half between 1980 and 2005 among immigrant seniors, from 34% to 17% (Table 3). The rate in 2005 was only marginally higher among immigrant seniors than among Canadian-born seniors (13%). The relative rate (relative to the Canadian-born of the same age) has changed little. It stood at 1.2 times that of the Canadian-born of the same age in 1980, and 1.3 in 2005.

The decline in low-income rates was heavily concentrated among elderly immigrants in Canada for over 20 years: the rate fell by 58% among this group between 1980 and 2005, and by 13% among very recent immigrant seniors. Very recent immigrants age 65 or over have seen their relative (to the Canadian-born) rate increase from around 1.1 in 1980 to 2.0 in 2005 (although their actual rates fell). In 2005, immigrant seniors in Canada for less than 20 years had low-income rates, at around 28%, significantly higher than Canadian-born seniors, at 13%.

The low-income rate among immigrant seniors fell both because the economic families in which they lived had higher market income, and because transfers increasingly reduced seniors' low-income rates. However, the effect of rising market income was larger.

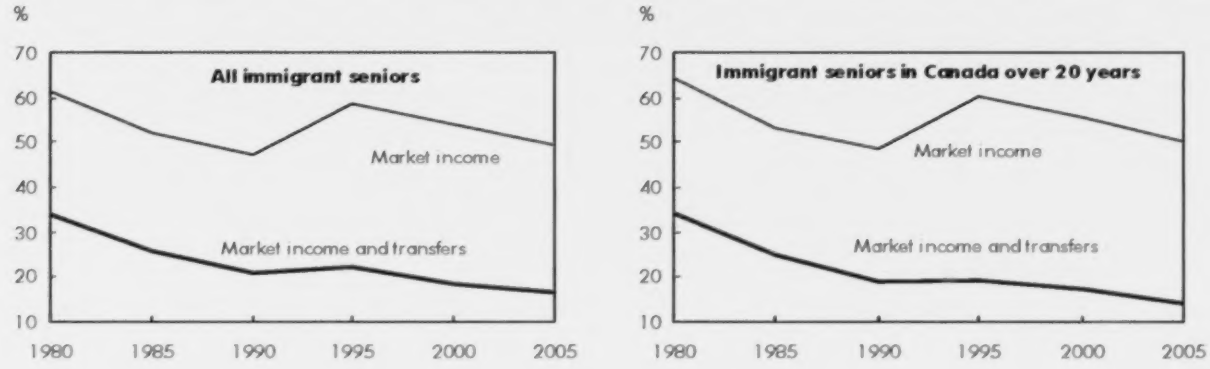
The market-based low-income rate among immigrant seniors fell by 20% (from 62% to 49%) over the past quarter century as a result of increased family market income (Chart E). In particular, it fell by almost 10% between 2000 and 2005. This trend runs counter to that for all other groups of immigrants, among whom market-based low-income rates increased. Market

Table 3 Low-income rates by immigration status for seniors age 65 or over

				Years since immigration				
	Total	Canadian-born	Immigrants	5 or less	6 to 10	11 to 15	16 to 20	Over 20
				%				
After-transfer, before-tax low-income rate								
1980	29.8	28.1	33.8	31.5	32.3	29.0	32.7	34.2
1985	23.8	23.0	26.0	34.7	38.6	27.4	25.9	24.9
1990	19.4	18.9	20.8	28.8	33.5	27.7	24.8	19.0
1995	19.2	18.1	22.1	38.1	36.7	29.5	29.5	19.5
2000	16.8	16.0	18.6	27.0	21.9	23.7	25.0	17.5
2005	14.3	13.3	16.6	27.2	29.9	27.7	27.6	14.2
Low-income rates relative to Canadian-born								
1980	...	...	1.2	1.1	1.1	1.0	1.2	1.2
1985	...	...	1.1	1.5	1.7	1.2	1.1	1.1
1990	...	...	1.1	1.5	1.8	1.5	1.3	1.0
1995	...	...	1.2	2.1	2.0	1.6	1.6	1.1
2000	...	...	1.2	1.7	1.4	1.5	1.6	1.1
2005	...	...	1.3	2.0	2.3	2.1	2.1	1.1

Source: Statistics Canada, Census of Canada, 20% sample microdata files, 1981 to 2006.

Chart E Market-based and after-transfer low-income rates, population age 65 and over



Source: Statistics Canada, Census of Canada, 20% sample microdata files, 1981 to 2006.

income rose among economic families in which seniors lived, and fell among all other immigrant age groups. This may have as much to do with the formation of an increasing number of intergenerational immigrant families, in which a younger member of the family is working, as with the employment trends among immigrant seniors themselves.

Immigrant seniors and the transfer system

Increases in government transfers have also tended to reduce the low-income rate among immigrant seniors, just as they did among the Canadian-born. In 1980, transfers reduced the low-income rate by 28 percentage points among immigrant seniors and by 33 percentage points in 2005 (Table 7). Hence, both increased market income and rising transfers contributed to the decline in the low-income rate among immigrant seniors. However, market income played a larger role. Of the 17 percentage-point decline in the low-income rate over the past quarter century, 12 percentage points were associated with market income effects and 5 percentage points with the direct effect of transfers. This result is particularly evident in the recent past. Between 2000 and 2005, the market-based rate fell by 10%, but transfers reduced the rate less in 2005 than in 2000.

Low-income rates are based on the total income of the economic family in which seniors live. The earnings and income sources of other family members are included. If, for example, immigrant seniors were more likely to live in multi-generational economic families with more younger earners in 2005 than in 1980, this would be reflected in the rising market income available to seniors. Differences through time in the ethnic composition of immigrant seniors and their tendency to live in multi-generational families could result in such an outcome.

There is some evidence to suggest that such a change in the living arrangements of seniors did take place. One-quarter of immigrants 65 or older were living in an economic family with a member in the 25 to 59 age group (and hence likely to be employed) in 1980. By 2005, one-third of immigrant seniors were in such families. And among very recent immigrant seniors, the proportions were much higher: 69% in 1980, rising to 76% in 2005.[13]

The family situation of immigrant seniors is important since the less time they have been in Canada, the lesser the effect of the transfer system on their low-income rates.

Transfer payments received by many immigrant seniors during their first 10 years in Canada are influenced to some extent by the eligibility rules associated with 3 major sources of transfers for seniors—Old Age Security (OAS), Guaranteed Income Supplement (GIS), and social assistance. The transfer system reduces the low-income rate comparably to Canadian-born seniors only among those in Canada for more than 20 years.

The OAS is generally not available to individuals who have been in Canada for less than 10 years and is prorated until they have spent 40 years in the country.[14] The GIS is available to augment the OAS, even in the event of a partial OAS pension, but again usually after 10 years in Canada. And finally, the 'sponsorship agreement' accepted by those sponsoring family-class immigrants does not allow immigrant seniors to collect social assistance during their initial years in Canada[15] (see Baker et al. 2009 for a description of these rules and their effects).

The longer immigrant seniors stay in Canada, the more the transfer system reduces their low-income rate. In 2005, the transfer system reduced the low-income rate by 9 percentage points for immigrant seniors in Canada for 5 years or less, and by 15 percentage points for immigrants in Canada for 6 to 10 years, compared with 39 percentage points for Canadian-born seniors, and 36 percentage points for immigrant seniors in Canada for more than 20 years.

Summary

Over the past quarter century, low-income rates have been rising among immigrants and falling among the Canadian-born. In most cases, the differing trends for immigrants and the Canadian-born are determined primarily by differences in family labour market income. The falling relative earnings of immigrants are the subject of numerous studies (see Picot and Sweetman 2005 and Reitz 2007 for reviews).

Low-income rates are also influenced by government transfers. In Canada, the direct effects of the income transfer system reduced the low-income rate more in 2005 than in 1980 for both the Canadian-born and immigrants. Most of this change took place during the 1980s. But among immigrants, this increased effect was not sufficient to prevent low-income rates from rising (except among immigrant seniors), since the 'amount of work' the transfer system had to do also increased significantly as earnings fell.

Low-income rates are higher among immigrant children than other immigrant age groups and children with Canadian-born parents. Furthermore, low-income rates have been rising faster among immigrant children than other groups of immigrants. This has been occurring while rates have been falling among their Canadian-born counterparts. These differences are again largely related to differences in the market income of their parents.

The reduction in the low-income rate among seniors in Canada has been well documented. This trend is also observed among immigrant seniors, but for different reasons. Unlike the situation among other immigrant groups, low-income rates fell among immigrant seniors over the past quarter century. This reduction was the result of both increasing family market income and the transfer system's increased tendency to reduce low income over time. However, the market-income effect was larger—most of the decline was associated with lower market-based low-income rates among immigrant seniors.

Among immigrant seniors in Canada for 10 years or less, low-income rates declined only slightly. And their rates relative to Canadian-born seniors doubled over the past quarter century. The rate-reducing effect of transfers is much less for this group of immigrant seniors than for long-term immigrant seniors.

Table 4 Direct effect of transfer system on market income-based low-income rates, all ages

	Total	Canadian-born	Immigrants	Years since immigration				
				5 or less	6 to 10	11 to 15	16 to 20	Over 20
				%				
Market income-based low-income rate								
1980	24.5	24.6	24.1	28.5	22.7	18.4	19.3	26.9
1985	28.0	28.0	28.2	39.7	31.8	25.6	21.2	28.9
1990	25.3	24.9	26.7	38.5	31.1	26.2	21.1	25.1
1995	30.7	29.1	37.0	55.7	44.2	37.2	31.3	30.8
2000	26.3	24.7	32.0	44.0	37.7	31.7	28.2	28.1
2005	25.5	23.2	32.7	43.4	35.2	34.3	29.4	28.4
Market-based rates relative to Canadian-born								
1980	...	...	1.0	1.2	0.9	0.7	0.8	1.1
1985	...	...	1.0	1.4	1.1	0.9	0.8	1.0
1990	...	...	1.1	1.5	1.2	1.1	0.8	1.0
1995	...	...	1.3	1.9	1.5	1.3	1.1	1.1
2000	...	...	1.3	1.8	1.5	1.3	1.1	1.1
2005	...	...	1.4	1.9	1.5	1.5	1.3	1.2
Percent decline in market-based rates after transfers introduced								
1980	-30.0	-30.2	-29.3	-13.9	-17.7	-21.3	-24.2	-37.8
1985	-33.3	-33.7	-31.6	-13.8	-18.2	-22.6	-25.0	-43.1
1990	-38.6	-39.3	-36.0	-18.7	-22.3	-27.5	-28.2	-49.7
1995	-38.0	-39.6	-33.1	-15.6	-20.1	-26.7	-29.3	-49.7
2000	-40.9	-42.3	-37.0	-18.6	-24.9	-28.6	-32.2	-52.6
2005	-40.0	-42.6	-33.8	-17.2	-20.6	-24.8	-26.9	-53.2
				% point				
Percentage point decline in market-based rates after transfers introduced								
1980	-7.3	-7.4	-7.0	-4.0	-4.0	-3.9	-4.7	-10.2
1985	-9.3	-9.4	-8.9	-5.5	-5.8	-5.8	-5.3	-12.5
1990	-9.8	-9.8	-9.6	-7.2	-6.9	-7.2	-6.0	-12.5
1995	-11.7	-11.5	-12.2	-8.7	-8.9	-9.9	-9.2	-15.3
2000	-10.8	-10.5	-11.8	-8.2	-9.4	-9.1	-9.1	-14.8
2005	-10.2	-9.9	-11.1	-7.5	-7.2	-8.5	-7.9	-15.1

Source: Statistics Canada, Census of Canada, 20% sample microdata files, 1981 to 2006.

Table 5 Direct effect of transfer system on market income-based low-income rates for children age 0 to 17

	Total	Canadian-born	Immigrants	Years since immigration				
				5 or less	6 to 10	11 to 15	16 to 20	Over 20
				%				
Market income-based low-income rate								
1980	24.6	25.6	20.9	33.3	26.0	20.3	21.2	16.2
1985	27.2	27.6	25.5	46.2	35.1	28.1	22.8	18.4
1990	24.3	24.0	25.3	46.0	35.1	29.3	23.2	15.1
1995	30.4	28.0	38.8	65.8	50.4	42.1	35.2	23.0
2000	25.5	23.0	33.9	51.8	45.0	37.6	31.8	20.0
2005	25.9	22.4	36.3	51.9	41.1	41.1	34.8	21.3
Market-based rates relative to Canadian-born								
1980	...	...	0.8	1.3	1.0	0.8	0.8	0.6
1985	...	...	0.9	1.7	1.3	1.0	0.8	0.7
1990	...	...	1.1	1.9	1.5	1.2	1.0	0.6
1995	...	...	1.4	2.3	1.8	1.5	1.3	0.8
2000	...	...	1.5	2.2	2.0	1.6	1.4	0.9
2005	...	...	1.6	2.3	1.8	1.8	1.6	0.9
Percent decline in market-based rates after transfers introduced								
1980	-22.3	-22.5	-21.1	-16.1	-18.5	-20.4	-23.3	-24.9
1985	-23.8	-24.2	-22.1	-14.6	-18.9	-21.6	-23.9	-26.8
1990	-28.0	-28.8	-24.9	-18.8	-22.6	-25.6	-26.0	-31.3
1995	-27.1	-28.8	-22.3	-15.2	-19.2	-23.8	-26.6	-30.5
2000	-30.9	-32.8	-26.5	-18.9	-23.9	-27.3	-30.6	-34.3
2005	-30.6	-34.0	-24.4	-18.4	-22.8	-24.6	-27.1	-33.3
				% point				
Percentage point decline in market-based rates after transfers introduced								
1980	-5.5	-5.8	-4.4	-5.4	-4.8	-4.1	-5.0	-4.0
1985	-6.5	-6.7	-5.6	-6.7	-6.6	-6.1	-5.5	-4.9
1990	-6.8	-6.9	-6.3	-8.6	-7.9	-7.5	-6.0	-4.7
1995	-8.2	-8.1	-8.7	-10.0	-9.7	-10.0	-9.4	-7.0
2000	-7.9	-7.5	-9.0	-9.8	-10.7	-10.3	-9.7	-6.9
2005	-7.9	-7.6	-8.8	-9.5	-9.4	-10.1	-9.4	-7.1

Source: Statistics Canada, Census of Canada, 20% sample microdata files, 1981 to 2006.

Table 6 Direct effect of transfer system on market income-based low-income rates for population age 18 to 59

	Total	Canadian-born	Immigrants	Years since immigration				
				5 or less	6 to 10	11 to 15	16 to 20	Over 20
				%				
Market income-based low-income rate								
1980	18.3	18.7	16.2	25.6	19.8	15.5	15.8	12.9
1985	22.0	22.3	20.9	37.0	28.3	22.5	18.3	15.7
1990	19.1	19.0	19.5	35.2	27.0	21.7	17.4	13.1
1995	24.5	23.1	30.2	52.1	40.4	32.0	26.0	18.8
2000	19.8	18.5	24.8	40.7	33.6	26.9	22.8	15.3
2005	19.6	17.6	26.8	40.3	31.8	29.4	24.4	16.7
Market-based rates relative to Canadian-born								
1980	...	...	0.9	1.4	1.1	0.8	0.8	0.7
1985	...	...	0.9	1.7	1.3	1.0	0.8	0.7
1990	...	...	1.0	1.8	1.4	1.1	0.9	0.7
1995	...	...	1.3	2.3	1.7	1.4	1.1	0.8
2000	...	...	1.3	2.2	1.8	1.5	1.2	0.8
2005	...	...	1.5	2.3	1.8	1.7	1.4	0.9
Percent decline in market-based rates after transfers introduced								
1980	-21.0	-21.8	-16.6	-10.5	-14.1	-16.4	-18.0	-20.7
1985	-24.8	-25.6	-21.0	-13.4	-18.4	-20.5	-22.0	-25.9
1990	-28.6	-29.4	-24.6	-18.2	-22.4	-25.3	-25.2	-30.4
1995	-27.5	-29.0	-22.8	-15.4	-19.9	-24.2	-26.2	-31.1
2000	-27.3	-28.3	-24.1	-17.3	-22.0	-25.3	-27.4	-30.3
2005	-26.1	-28.0	-21.3	-16.5	-18.6	-22.0	-23.4	-28.3
				% point				
Percentage point decline in market-based rates after transfers introduced								
1980	-3.8	-4.1	-2.7	-2.7	-2.8	-2.6	-2.8	-2.7
1985	-5.5	-5.7	-4.4	-5.0	-5.2	-4.6	-4.0	-4.1
1990	-5.5	-5.6	-4.8	-6.4	-6.0	-5.5	-4.4	-4.0
1995	-6.7	-6.7	-6.9	-8.0	-8.0	-7.7	-6.8	-5.8
2000	-5.4	-5.3	-6.0	-7.0	-7.4	-6.8	-6.2	-4.6
2005	-5.1	-4.9	-5.7	-6.7	-5.9	-6.5	-5.7	-4.7

Source: Statistics Canada, Census of Canada, 20% sample microdata files, 1981 to 2006.

Table 7 Direct effect of transfer system on market income-based low-income rates for population age 65 and over

	Total	Canadian-born	Immigrants	Years since immigration				
				5 or less	6 to 10	11 to 15	16 to 20	Over 20
					%			
Market income-based low-income rate								
1980	61.1	60.9	61.7	36.1	38.6	47.7	53.6	64.3
1985	54.0	54.7	52.0	40.3	45.5	45.2	44.4	53.6
1990	50.6	51.8	47.4	37.1	42.6	45.3	44.8	48.4
1995	61.3	62.3	58.7	49.0	50.4	54.2	56.3	60.2
2000	57.5	58.8	54.3	43.6	44.6	49.4	50.9	55.8
2005	51.2	52.0	49.3	36.4	44.5	49.4	49.9	50.0
Market-based rates relative to Canadian-born								
1980	...	...	1.0	0.6	0.6	0.8	0.9	1.1
1985	...	...	1.0	0.7	0.8	0.8	0.8	1.0
1990	...	...	0.9	0.7	0.8	0.9	0.9	0.9
1995	...	...	0.9	0.8	0.8	0.9	0.9	1.0
2000	...	...	0.9	0.7	0.8	0.8	0.9	0.9
2005	...	...	0.9	0.7	0.9	0.9	1.0	1.0
Percent decline in market-based rates after transfers introduced								
1980	-51.2	-53.8	-45.2	-12.8	-16.3	-39.3	-39.1	-46.8
1985	-56.0	-58.0	-50.0	-13.8	-15.2	-39.3	-41.5	-53.6
1990	-61.6	-63.4	-56.0	-22.4	-21.3	-38.8	-44.7	-60.7
1995	-68.7	-71.0	-62.3	-22.4	-27.2	-45.6	-47.6	-67.6
2000	-70.8	-72.7	-65.7	-38.1	-50.9	-51.9	-50.9	-68.7
2005	-72.1	-74.5	-66.3	-25.4	-32.9	-44.0	-44.8	-71.7
					% point			
Percentage point decline in market-based rates after transfers introduced								
1980	-31.3	-32.8	-27.9	-4.6	-6.3	-18.7	-21.0	-30.1
1985	-30.2	-31.7	-26.0	-5.6	-6.9	-17.8	-18.4	-28.7
1990	-31.2	-32.8	-26.5	-8.3	-9.1	-17.6	-20.0	-29.4
1995	-42.1	-44.3	-36.6	-11.0	-13.7	-24.7	-26.8	-40.7
2000	-40.7	-42.8	-35.7	-16.6	-22.7	-25.6	-25.9	-38.3
2005	-37.0	-38.8	-32.7	-9.3	-14.7	-21.7	-22.4	-35.9

Source: Statistics Canada, Census of Canada, 20% sample microdata files, 1981 to 2006.

Notes

1. Collective dwelling residents and residents of Yukon, the Northwest Territories and Nunavut, and those on Indian reserves are excluded since the low-income cut-offs are not defined for these regions in census microdata files.

2. If every person in the economic family has zero income, the immigrant status of the oldest person is used.

3. The LIM is a low-income measure set at one-half the median income. If the LIM is rebased every year, it is a purely relative measure: across the board increases in income would not affect the rate. To avoid this situation, the LIM can be fixed at a point in time and moved forward by the Consumer Price Index.

4. Low-income rates rise and fall with the business cycle (economic conditions). Hence, to observe longer-term trends, rather than short-term fluctuations in rates due to recessions and expansions, the focus is on years that are roughly in the same position in the business cycle. Here, that means focusing on 1980, 1990, 2000 and 2005, years roughly at the peak of the business cycle. Using these years will provide a reasonable estimate of longer-term trends. The increases in low-income rates in 1985 and 1995 did not really reflect longer-term trends, but rather fluctuations associated with downturns in the business cycle.

5. On-reserve First Nations people were not included in this analysis because of data issues.

6. This comparison can basically be made in two different ways. The first method, and the one used in this paper, is a simple comparison of the aggregate rate observed in the raw data for immigrants (or any particular group of immigrants) with that of all of the Canadian-born. The second method is to compute relative low-income rates that take other differences between the groups into account (a multivariate approach). This approach was used in an earlier paper (Picot and Hou 2003), which examined trends over the 1980 to 2000 period. It found that compositional changes accounted for up to one-half of the rise in the low-income rate among recent immigrants in the 1980s, but were less important thereafter. In this study, the simpler approach is used to focus on the relative roles of market earnings and government transfers on low-income rates.

7. The direct effect of transfers refers to the extent to which the dollars received from the programs such as the Spouses's Allowance, EI and child tax credits move families from below to above the low-income cut-offs. This study does not account for indirect effects. Government transfers may have work-disincentive effects: people may be less likely to seek employment if they are receiving transfers, as compared with the hypothetical case where no transfer system existed. Hence, the market income-based low-income rate computed here is not the rate that would exist if no transfers were received by families.

8. Other calculations test whether changes in family status, either among immigrants or the Canadian-born, significantly affected the basic findings reported here, and indicate that they do not (results available upon request).

9. The same low-income cut-offs (LICOs) are used for the calculations using market-based and after-transfer family income.

10. This is not a comprehensive examination of the transfer system used by immigrants. It does not account for transfers received by families with market incomes above the low-income cut-off or families with very low market incomes for which transfers received leave them below the cut-off.

11. This percentage is simply the difference in the rate before and after transfers (7.3 percentage points in 1980) divided by the rate based on market income (24.5) times 100, i.e. 30%.

12. Family earnings can change because of changes in the number of people working, the number of hours worked by those employed, or because of changes in hourly wage rates. Census data do not allow differentiation between these factors.

13. The increasing proportion of multi-generational families could also reduce the low-income rate in the absence of any change in income since the LICO assumes that economies of scale can be achieved as economic family size increases.

14. Immigrants age 65 or older who have lived in Canada for less than 10 years may still qualify for OAS if their country of origin has an international social security agreement with Canada. To date, Canada has signed 51 social security agreements and, of these, 49 are in force (Elgersma 2007).

15. There is evidence to suggest, however, that many family-class immigrants receive Spousal Allowance benefits during the first 10 years (see Thomas 1996). Immigrant low-income rates: The role of market income and government transfersGarnett Picot, Yuqian Lu and Feng Hou

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